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## Dairy Herd Improvement Letter

Vol. 52, No. 3



**ARS-NE-60-5** 

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Issued June 1976

## Dairy Herd Improvement Letter

## NATIONAL COOPERATIVE DAIRY HERD IMPROVEMENT PROGRAM PARTICIPATION REPORT, JANUARY 1, 1976 $\frac{1}{}$

The National Cooperative Dairy Herd Improvement Program (NCDHIP) is a composite of the Official Dairy Herd Improvement (Official DHI), Dairy Herd Improvement Registry (DHIR), Owner-Sampler, Alternate AM-PM, Commercial, Weigh-a-Day-a-Month (WADAM), and other unofficial diary recordkeeping plans.

On January 1, 1976, the program included 53,114 herds with 3,482,643 cows, or 31.4 percent of the Nation's dairy cow population. The cows were in 1,051 associations with 2,218 supervisors. Official DHI and DHIR included 32,232 herds and 2,438,365 cows, averaging 75.7 cows per herd. DHIR alone included 3,198 herds and 240,603 cows, averaging 75.2 cows per herd. Owner-Sampler included 17,299 herds and 726,610 cows, averaging 42.0 cows per herd. Similar figures for Alternate AM-PM were 2,355 herds, 123,590 cows, and 52.5 cows per herd. All other unofficial plans included 1,228 herds and 194,078 cows, averaging 158.0 cows per herd.

The percentage of the Nation's cows enrolled in Official DHI and DHIR was 22.0, which is up from 21.7 percent in 1975. DHIR alone enrolled 2.2 percent of the Nation's cows. Owner-Sampler cows were 6.6 percent of the Nation's cows in 1975, and Alternate AM-PM increased slightly to 1.1 percent. Enrollment in other unofficial plans comprised 1.8 percent of the Nation's cows, an increase of 0.2 percent from 1975.

Table 1 lists those States that have State Dairy Herd Improvement Associations and those that hold membership in the National Dairy Herd Improvement Association, Inc. (NDHIA). (See map on page 3.) The numbers of associations and supervisors in the Program are also listed. The count of counties was dropped because the association is now the more meaningful organization to consider.

In 1975 three State DHIA's (Idaho, Nevada, and North Dakota) were formed for a total of 47 as of January 1, 1976. Since January 1, 1975, four States (Nevada, North Dakota, Rhode Island, and Wyoming) joined NDHIA for a total of 44 States and Puerto Rico as of January 1, 1976. The continuing formation of State DHIA's and the rapid growth of NDHIA are encouraging.

Table 2 lists the percentages of all milk cows included in all record-keeping plans. (See map on page 4.) The data show four States (Hawaii, South Carolina, Nevada, and California) with more than 50 percent of their cows tested. Ten States follow with between 40 and 49.9 percent of their cows

<sup>1/</sup> Prepared by Gerald J. King, dairy husbandman, and Evelyn F. Myers, clerk, in the Animal Improvement Programs Laboratory, Animal Physiology and Genetics Institute, Northeastern Region, ARS, USDA, Beltsville, Md. 20705, from data supplied by the State Extension Dairymen reporting on the NCDHIP.

tested; 16 States, between 30 and 39.9 percent; 10 States, between 20 and 29.9 percent; 9 States, between 10 and 19.9 percent; and 1 State still has less than 10 percent of its cows tested.

Table 3 summarizes the data for participating States in each record-keeping plan. Footnote 4 lists 946 herds and 37,811 cows on unofficial recordkeeping plans not under the auspices of the NCDHIP. Two of these plans are vocational agriculture and private testing.

Tables 4 through 8 present details of participation in the various plans. Table 4 shows there are 10 more herds and 6,000 more cows on official test on January 1, 1976, than on January 1, 1975. Average herd size increased by 0.3 cow.

Table 5 presents data for the DHIR plan. The DHIR plan increased in herds and cows since January 1, 1975.

Table 6 presents data for the Owner-Sampler plan. The Owner-Sampler plan decreased in herds and cows since January 1, 1975.

Table 7 presents data for the Alternate AM-PM, Commercial, and WADAM plans. Alternate AM-PM testing increased by almost 50 percent in cow numbers by January 1, 1976.

Table 8 presents data for the Milk-Only-Record plan and all other unofficial plans.

Table 9 presents a history of Official DHI and DHIR testing in the United States since 1940. The given number of associations and supervisors is for the total NCDHIP. Data for 1906 through 1939 are included in table 10 of the May 1970 Dairy Herd Improvement Letter, ARS 44-215.

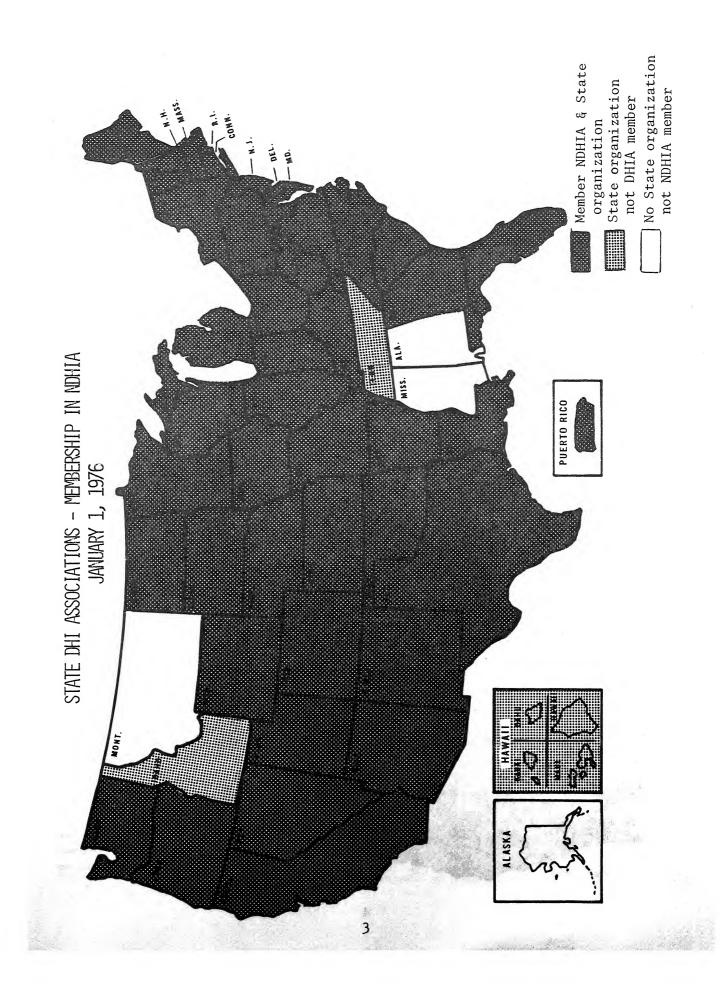
Table 10 presents a history of the Owner-Sampler plan from its first tabulation for January 1, 1956.

Table 11 presents a history of other unofficial plans since January 1, 1957, just after the beginning of WADAM testing.

Table 12 lists counties or associations that have 40 percent or more of their dairy cows included in the NCDHIP.

Table 13 is a list of the Extension Dairymen who advise on the NCDHIP in the States.

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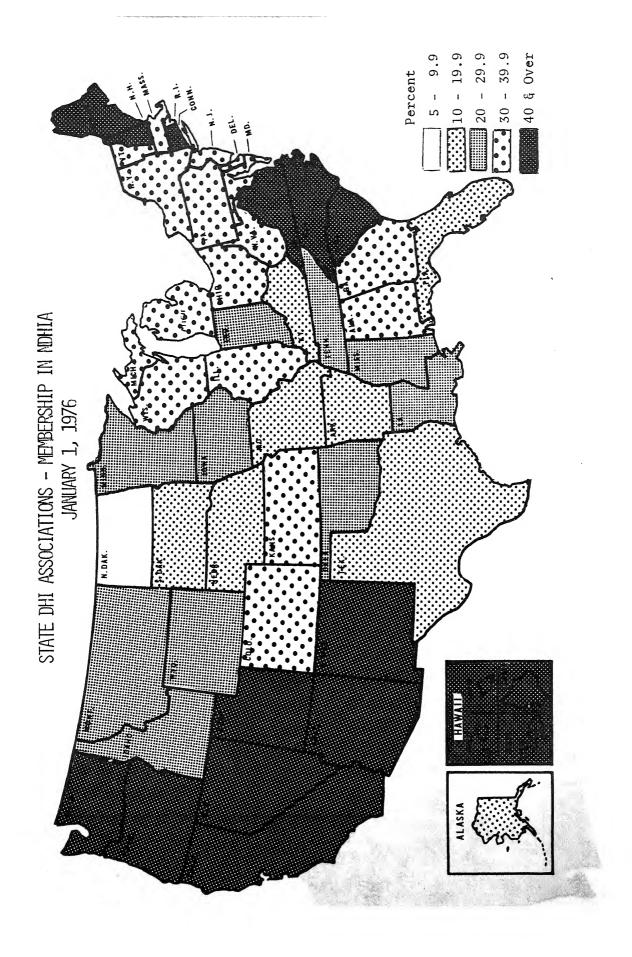


TABLE 1.--STATE DHIA'S, MEMBERSHIP IN NDHIA, INC., ASSOCIATIONS, AND SUPERVISORS: THE NATIONAL COOPERATIVE DAIRY HERD IMPROVEMENT PROGRAM, JANUARY 1, 1976

STATE AND PROGRAM	STATE DHIA	MEMBER OF NDHIA, INC.	ASSOCI- ATIONS	SUPER- VISORS	STATE AND PROGRAM	STATE DHIA	MEMBER OF NDHIA, INC.	ASSOCI- ATIONS	SUPER- VISORS
			NO.	NO.				NO.	NO.
ALABAMA	NO	NO	18	17	NEW HAMPSHIRE	YES	YES	8	14
ALASKA	NO	NO	1	1	NEW JERSEY	YES	YES	5	
ARIZONA	YES	YES	i	11	NEW MEXICO	YES	YES	3	14 8
ARKANSAS	YES	YES	21	21	NEW YORK	YES	www.		
CALIFORNIA	YES	YES	26	110			YES	48	177
COLORADO	YES	YES	17	23	NORTH CAROLINA	YES	YES	26	46
	1 35	, 1 23	17	23	NORTH DAKOTA	Y ES	YES	15	22
CONNECTICUT	YES	YES	7	17	OHIO	YES	YES	17	118
DELAWARE	YES	YES	3	3	OKLAHOMA	YES	YES	17	22
FLORIDA	YES	YES	11	15	OREGON	YES	YES	13	21
GEORGIA	YES	YES	22	25	PENNSYLVANIA				
HAWAII	YES	NO	1	2	PUERTO RICO	YES	YES	59	170
IDA HO	YES	NO	24	29		YES	YES	1	9
		NO	24	29	RHODE ISLAND	YES	YES	2	2
ILLINOIS	YES	YES	49	71	SOUTH CAROLINA	YES	YES	10	
INDIANA	YES	YES	46	63	SOUTH DAKOTA	YES	YES	18	25
IOMY	YES	YES	60	81	TENNESSEE	YES	NO	18 29	15 33
ANSAS	YES	YES							55
ENTUCKY	YES	YES	47 40	60	TEXAS	YES	YES	26	40
COUISIANA	YES	YES		50	OT AH	YES	YES	15	17
	Cal	1 25	11	27	VERMONT	YES	YES	25	50
IAINE	YES	YES	12	29	VIRGINIA	YES	YES	38	52
IARYLAND	YES	YES	14	32	WASHINGTON	YES	YES	19	
ASSACHUSETTS	YES	YES	7	17	WEST VIRGINIA	YES	YES	11	40 19
ICHIGAN	YES	YES	1	83	TT GGG NAT V				
INNESOTA	YES	YES	73	164	WISCONSIN	YES	YES	31	224
IISSISSIPPI	NO	NO	22	27	WYOHING	YES	YES	4	7
ISSOURI	WEG.								
ONTANA	YES	YES	39	50					
EBRASKA	NO	NO	6	8	THE NATIONAL				
	YES	YES	30	34	COOPERATIVE				
EVADA	YES	YES	2	З ,	DHI PROGRAM	47	44	1,051	2,218

STATE PERCENT HAWAII----76.1 MASSACHUSETTS----35.9 MINNESOTA----25.2 SOUTH CAROLINA---58.0 GEORGIA----35.5 LOUISIANA-----24.5 NEVADA----57.5 KANSAS-----35.3 WYOMING----24.2 CALIFORNIA----54.1 ALABAMA----35.2 OKLAHOMA----21.8 VIRGINIA----49.8 PENNSYLVANIA----35.2 TENNESSEE----20.8 NEW MEXICO----49.6 NEW YORK----33.9 MISSISSIPPI----20.4 CONNECTICUT----47.4 WEST VIRGINIA----33.8 FLORIDA----19.9 ARIZONA----DELAWARE----32.7 NEBRASKA----18.7 WASHINGTON----44.1 VERMONT-----31.5 RHODE ISLAND ---17.3 OREGON-----43.6 WISCONSIN----31.5 MISSOURI----16.4 UTAH-----43.3 OHIO-----31.2 SOUTH DAKOTA---14.5 NORTH CAROLINA---40.9 MICHIGAN-----30.9 TEXAS----13.9

ILLINOIS-----

INDIANA-----

MONTANA----

IDAHO-----

IOWA----

PERCENT

30.5

28.0

26.4

25.7

25.3

ARKANSAS----

ALASKA-----

KENTUCKY----

NORTH DAKOTA---

UNITED STATES--

12.9

12.5

11.3

6.8

31.4

TABLE 2.--PERCENTAGE OF COWS, BY STATE, INCLUDED IN THE NATIONAL COOPERATIVE DAIRY HERD IMPROVEMENT PROGRAM, JANUARY 1, 1976

STATE

NEW HAMPSHIRE----

MAINE----

NEW JERSEY----

MARYLAND-----

COLORADO----

PERCENT

40.5

40.1

37.5

36.8

36.1

TABLE 3 .-- THE NATIONAL COOPERATIVE DAIRY HERD IMPROVEMENT PROGRAM AND OTHER TESTING PLANS, JANUARY 1, 1976 1/

TABLE 3THE NATIO	OFF	ICIAL DHI ND DHIR	OWNER-	SAMPLER	ALT	ERNATE	OTE			ALL NG PLANS	U.S. MILK	PCT. IN ALL
STATE	HERDS	COWS	HERDS	COWS	HERDS	COWS	HERDS	COWS	HERDS	COWS		3/ PLANS
	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	THOU.	
ALABAMA	2 <b>2</b> 5 1	27,627 67	27 3	4,086 182					252 4	31,713 249	90 2	35.2 12.5
ARIZONAARKANSAS	86 115	31,820 7,030	39	4, 132			2	35 <b>1</b>	86 156	31,820 11,513	68 89	46.8 12.9
CALIFORNIACOLORADO	1,107 232	354,614 23,785	42 13	4,194 1,095			228 13	79,655 2,169	1,377 258	438,463 27,049	810 75	54.1 36.1
CONNECTICUT DELAWARE	300 43	23,217 3,171	_ <del></del>	1,312	10	756	9	1,092	338 53	25,621 3,927	54 12	47.4 32.7
FLORIDAGEORGIA	54 273	15,817 32,631	2 2	295 93	1	371	46 80	19,964 13,007	103 355	36,447 45,731	196 129	18.6 35.5
HAWAII	10 438	3,994 31,920	2 39	982 2,404	13	1,675	13 6	5,681 1,048	25 496	10,657 37,047	14 144	76.1 25.7
ILLINOISINDIANA	1,101 818	59,424 46,757	216 283	9,273 12,840			115 	5,820	1,432 1,101	74,517 59,597	244 213	30.5 28.0
IOWA	1,532 696	68,811 43,950	798 110	29,959 5,400	5	171	6 4	225 1,180	2,341 810	99,166 50,530	392 143	25.3 35.3
KENTUCKY	408 303	24,849 29,370	39 1	3,276 81			56 49	4,004 4,351	503 353	32,129 33,802	285 138	11.3 24.5
MAINE	377 581	20,616 48,461	39 48	1,493 2,477			18 13	1,932 988	43 <b>4</b> 642	24,041 51,926	60 141	40.1 36.8
MASSACHUSETTS MICHIGAN	286 1,229	18,188 89,408	22 653	731 33,957			7 91	847 6,773	315 1,973	19,766 130,138	55 421	35.9 30.9
MINNESOTA	3,358 241	152,417 21,778	1,992 17	71,419 1,537	11 	412 	2 6	222 590	5,363 264	224,470 23,905	890 117	25.2 20.4
MISSOURI	598 62	39,979 5,804	174 9	9,145 1,047					772 71	49,124 6,851	300 26	16.4 26.4
NEBRASKA	396 34	24,442 6,696	59 3	2,950 1,350	1	95	<u>5</u>	224	461 37	27,711 8,046	148 14	18.7 57.5
NEW HAMPSHIRE NEW JERSEY	190 225	11,285 16,345	35 10	1,043 380			11 1	1,049 145	236 236	13,377 16,870	33 45	40.5 37.5
NEW MEXICO	31 3,015	15,151 190,257	2 1,194	216 54,376	 896	50,524	 192	 15,714	33 5,297	15,367 310,871	31 916	49.6 33.9
NORTH CAROLINA NORTH DAKOTA	619 115	58,196 6,273	26 13	1,585 1,115			32 14	2,760 680	677 142	62,541 8,068	153 119	40.9 67.8
OKLAHOMA	1,531 326	86,842 24,038	769 21	33,560 908	20	1,281	4	540	2,320 351	121,683 25,486	3 90 1 1 7	31.2 21.8
OREGON PENNSYLVANIA	354 3 <b>,</b> 166	35,675 169,723	31 916	1,150 36,722	784	41,723	19 	2,445	404 4,866	39,270 248,168	90 706	43.6 35.2
PUERTO RICO RHODE ISLAND	78 20	17,731 1,038					15 	3,707	93 20	21,438 1,038	6	17.3
SOUTH CAROLINA SOUTH DAKOTA	238 180	29,752 9,748	11 266	782 11 <b>,</b> 758			7 18	601 1,049	256 464	31,135 22,555	54 156	58.0 14.5
TENNESSEE TEXAS	495 334	40,279 37,527	2 41	57 4 <b>,</b> 575			46 17	3,771 2,411	543 392	44,107 44,513	212 320	20.8 13.9
UTAH VERMONT	326 707	31,924 41,633	16 336	784 16,379	41	2,951	12 1	1,528 128	354 1,085	34,236 61,091	79 194	43.3 31.5
VIRGINIA	840 624	75,774 68,277	4 <b>1</b> 53	3,350 3,121	9	1,410	1 37	102 6,075	882 723	79,226 78,883	159 179	49.8 44.1
WEST VIRGINIA WISCONSIN WYOMING	174 3,708 32	12,542 198,807 2,905	8,849 	231 348,808	564 	22,221	11 21	423 827	191 13,142 32	13,196 570,663 2,905	1,810 12	33.8 31.5 24.2
THE NATIONAL COOPERATIVE DHI PROGRAM	32,232	2,438,365	17,299	726,610	2,355	123,590	1,228	194,078	53,114	3,482,643	11,092	31.4
OTHER TESTING 4/-									946	37,811	11,092	.3
ALL PLANS									54,060	3,520,454	11,092	31.7

<sup>1/</sup> DASHES INDICATE PLAN IS NOT IN OPERATION IN STATE OR DATA UNAVAILABLE OR NOT REPORTED.

<sup>2/</sup> UNOFFICIAL PLANS OPERATING UNDER THE AUSPICES OF THE NCDHIP. THESE PLANS ARE DETAILED IN TABLES 7 AND 8.

<sup>3/</sup> PRELIMINARY PIGURES POR JANUARY 1, 1976, NUMBERS OF MILK COWS AND HEIFERS THAT HAVE CALVED, EXCLUDING HEIFERS NOT YET FRESH: ESTIMATED BY THE STATISTICAL REPORTING SERVICE (USDA) IN "CATTLE", FEBRUARY 1976.

<sup>4/</sup> THE POLLOWING NUMBER OF HERDS AND COWS ARE ON OTHER TESTING PLANS NOT INCLUDED IN THE NCHIP, SUCH AS VOCATIONAL AGRICULTURE AND PRIVATE, BY STATE: FLORIDA, 6 HERDS, 2,500 COWS; SOUTH CAROLINA, 3 HERDS, 181 COWS; VIRGINIA, 12 HERDS, 360 COWS; WISCONSIN, 925 HERDS, 34,770 COWS.

TABLE 4.--OFFICIAL DHI AND DHIR RECORDKEEPING IN THE UNITED STATES, JANUARY 1, 1976

STATE	HERDS	COWS	CHANGE FROM 1/1/75	COWS PER HERD	U.S. MILK COWS 1/	PCT. OF U.S. COWS
	NO.	ио.	NO.	NO.	THOU.	
ALABAMA	225	27 <b>,</b> 627	-1,117	122.8	90	36.7
	1	67	+23	67.0	2	3.4
ARIZONAARKANSAS	86	31,820	-350	370.0	68	4.7
	115	7,030	-23	61.1	89	7.9
CALIFORNIACOLORADO	1,107	354,614	-5,220	320.3	810	43.8
	232	23,785	-848	102.5	75	31.7
CONNECTICUT DELAWARE	300	23,217	+1,043	77.4	54	43.0
	43	.3,171	-55	73.7	12	26.4
FLORIDA	54	15,817	-2,061	292.9	196	8.1
	273	32,631	-686	119.5	129	25.3
HAWAII	10	3,994	-1,450	399.4	14	28.5
	438	31,920	+823	72.9	144	22.2
ILLINOISINDIANA	1,101	59,424	+1,375	54.0	244	24.4
	818	46,757	+1,343	57.2	213	22.0
IOWA	1,532	68,811	+269	44.9	392	17.6
	696	43,950	-3,075	63.1	143	30.7
KENTUCKY	408	24,849	<b>-7</b> 03	60.9	285	8.7
LOUISIANA	303	29,370	+867	96.9	138	21.3
MAINE	3 <b>77</b>	20,616	+2,176	54.7	60	34.4
	581	48,461	+493	83.4	141	34.4
MASSACHUSETTS	286	18,188	+1,086	63.6	55	33.1
MICHIGAN	1,229	89,408	+1,772	72.7	421	21.2
MINNESOTA	3,358	152,417	+53	45.4	890	17.1
MISSISSIPPI	241	21,778	-254	90.4	117	18.6
MISSOURI	598	39,979	-1,123	66.9	300	13.3
	62	5,804	+799	93.6	26	22.3
NEBRASKA	396	24,442	-1,779	61.7	148	16.5
NEVADA	34	6,696	-1,053	196.9	14	47.8
NEW HAMPSHIRE	190	11,285	+704	59.4	33	34.2
NEW JERSEY	225	16,345	+49	72.6	45	36.3
NEW MEXICO	31	15,151	+2,072	488.7	31	48.9
	3,015	190,257	-1,029	63.1	916	20.8
NORTH CAROLINA	619	58,196	-11	94.0	153	38.0
NORTH DAKOTA	115	6,273	-428	54.5	119	5.3
OKLAHOMA	1,531	86,842	-1,169	56.7	390	22.3
	326	24,038	-2,332	73.7	117	20.5
OREGON	354	35,675	-1,653	100.8	90	39.6
	3 <b>,1</b> 66	169,723	+3,556	53.6	706	24.0
PUERTO RICO RHODE ISLAND	78	17,731	+1,778	227.3		
	20	1,038	-286	51.9	6	17.3
SOUTH CAROLINA	238	29,752	+88	125.0	54	55.1
SOUTH DAKOTA	180	9,748	-514	54.2	156	6.2
TENNESSEE TEXAS	495	40,279	+1,805	81.4	212	19.0
	334	37,527	-2,528	112.4	320	11.7
UTAH	326	31,924	-1,084	97.9	79	40.4
VERMONT	707	41,633	-1,108	58.9	194	21.5
VIRGINIA WASHINGTON	840	75,774	+2,635	90.2	159	47.7
	624	68,277	+3,657	109.4	179	38.1
WEST VIRGINIA	174	12,542	+526	72.1	39	32.2
WISCONSIN	3 <b>,7</b> 08	198,807	+7,750	53.6	1,812	11.0
WYOMING	32	2,905	+601	90.8	12	24.2
UNITED STATES	32,232	2,438,365	+5,404	75.7	11,092	22.0

<sup>1/</sup> PRELIMINARY FIGURES FOR JANUARY 1, 1976, NUMBERS OF MILK COWS AND HEIPERS THAT HAVE CALVED, EXCLUDING HEIPERS NOT YET FRESH; ESTIMATED BY THE STATISTICAL REPORTING SERVICE (USDA) IN 'CATTLE', FEBRUARY 1976.

DASHES INDICATE STATE COW NUMBERS NOT AVAILABLE.

TABLE 5.--DAIRY HERD IMPROVEMENT REGISTRY RECORDSEEPING IN THE UNITED STATES, JANUARY 1, 1976 1/

STATE	HERDS	cows	CHANGE FROM 1/1/75	COWS PER HERD	U.S. MILK COWS 2/	PCT. OF U.S. COWS
	NO.	NO.	NO.	NO.	THOU.	
ALABAMA	13	1,876	+95	144.3	90	2.1
	1	67	+23	67.0	2	3.3
ARIZONA	22	5,790	-90	263.2	68	8.5
	18	779	+34	43.3	89	.9
CALIFORNIA COLORADO	110	30,711	+1,318	280.0	810	.3.8
	38	3,578	+155	94.2	75	4.8
CONNECTICUT DELAWARE	49	3,360	-134	68.6	54	6.2
	4	270	-88	67.5	12	2.3
FLORIDAGEORGIA	6	3,035	-1,216	505.8	196	1.5
	14	2,201	-128	157.2	129	1.7
HAWAIIIDAHO	(3/)	(3/)	(3/)	(3/)	14	(3/)
	24	1,608	-390	67.0	144	1.1
ILLINOISINDIA NA	136	6,545	-697	48.1	244	2.7
	115	6,060	-308	52.7	213	2.8
IOWAKANSAS	164 71	7,207 4,015	-167 -90	43.9 56.5	392 143	1.8
KENTUCKY	47 12	2,749 1,369	+275 +229	58.5 114.1	285 138	1.0
HAINE	47	2,792	+204	59.4	60	4.7
	49	4,924	+16	100.5	141	3.5
MASSACHUSETTS	45	3,122	+1,612	69.4	55	5.7
MICHIGAN	78	6,038	+231	77.4	421	1.4
MINNESOTA	159	7,062	+412	44.4	890	.8
MISSISSIPPI	23	1,873	+151	81.4	117	1.6
MISSOURI	46 10	2,986 855	-518 -86	64.9 85.5	300 26	1.0
NEBRASKA	49	3,066	-257	62.6	148	2.1
NEVADA	10	1.233	+330	123.3	14	8.8
NEW HAMPSHIRE	36	2,205	+131	61.3	33	6.7
NEW JERSEY	26	1,905	-512	73.3	45	4.2
NEW MEXICO	8	3,023	-2,026	377.9	31	9.8
	221	13,088	+677	59.2	916	1.4
NORTH CAROLINA NORTH DAKOTA	33 9	3,408 525	-99 -105	103.3	153 119	2.2
OKINHOWN	283	15,591	+324	55.1	390	4.0
	56	3,753	+539	67.0	117	3.2
OREGON PENNSYLVANIA	45	4,540	+485	100.9	90	5.0
	144	8,731	+104	60.6	706	1.2
PUERTO RICO RHODE ISLAND	(3/) 6	(3/) 267	(3/) -247	(3/) 44.5		4.5
SOUTH CAROLINA	39	5,187	+277	133.0	54	9.6
SOUTH DAKOTA	21	1,011	+62	48.1	156	
TENNESSEE	37 55	3,209 6,452	-94 -801	86.7 117.3	212	.6 8.7
UTAH VERMONT	23 105	2,124 6,152	+100 +153	92.3 58.6	320 79	2.0
VIRGINIA	65 83	6,341 8,027	-408 -713	97.6	194 159	3.2 4.0
WEST VIRGINIA WISCONSIN	13 525	1,134 28,281	+92	96.7 87.2	179 39	4.5 2.9
WYOMING	5	470	+1,351 -50	53.9 94.0	1,812 12	1.6 3.9
UNITED STATES	3,198	240,603	+164	75.2	11,092	2.2

<sup>1/</sup> INCLUDED IN COUNT OF OFFICIAL HERDS IN TABLES 3 AND 4.
2/ PRELIMINARY FIGURES FOR JANUARY 1, 1976, NUMBERS OF MILK COWS AND HEIFERS THAT HAVE CALVED, EXCLUDING HEIFERS NOT YET FRESH; ESTIMATED BY THE STATISTICAL REPORTING SERVICE (USDA) IN "CATTLE", FEBRUARY 1976.
DASHES INDICATE STATE COW NUMBERS NOT AVAILABLE.
3/ NO PARTICIPATION IN DHIR TESTING REPORTED.

TABLE 6.--OWNER-SAMPLER RECORDKEEPING IN THE UNITED STATES, JANUARY 1, 1976

STATE	HERDS	COWS	CHANGE FROM 1/1/75	COWS PER HERD	U.S. MILK COWS 1/	PCT. OF U.S. COWS
	NO.	мо.	NO.	NO.	THOU.	
ALABAMAALASKA	27.	4,086	+545	151.3	90	4.5
	3	182	-4	60.7	2	9.1
ARIZONAARKANSAS	(2/)	(2/)	-243	(2/)	68	(2/)
	39	4,132	-362	105.9	89	4.6
CALIFORNIA COLORADO	42	4,194	-1,245	99.9	8 10	.5
	13	1,095	+302	84.2	75	1.5
CONNECTICUT DELAWARE	29	1,312	+123	45.2	54	2.4
	(2/)	(2/)	(2/)	(2/)	12	(2/)
FLORIDAGEORGIA	2 2	295 93	+97 +11	147.5 46.5	196 129	• 2 • 1
HAWAIIIDAHO	2	982	+82	491.0	14	7.0
	39	2,404	-136	61.6	144	1.7
ILLINOISINDIANA	216	9,273	-114	42.9	244	3.8
	283	12,840	-1,347	45.4	213	6.0
IOWAKANSAS	798	29,959	-478	37.5	392	7.6
	110	5,400	-928	49.1	143	3.8
KENTUCKY LOUISIANA	39	3,276	+1,725	84.0	285	1.1
	1	81	0	81.0	138	.1
MARYLAND	39	1,493	-136	38.3	60	2.5
	48	2,477	-249	51.6	141	1.8
MASSACHUSETTS	22	731	-935	33.2	55	1.3
MICHIGAN	653	33,957	-2,498	52.0	421	8.1
MINNESOTA MISSISSIPPI	1,992	71,419	-5,091	35.9	890	8.0
	17	1,537	+689	90.4	117	1.3
MISSOURI	174	9,145	-452	52.6	300	3.0
MONTANA	9	1,047	-210	116.3	26	4.0
NEBRASKA	59	2,950	+290	50.5	148	2.0
NEVADA	3	1,350	+1,028	450.0	14	9.6
NEW HAMPSHIRE	35	1,043	-374	29.8	33	3.2
NEW JERSEY	10	380	+33	38.0	45	.8
NEW MEXICO	2	216	-146	108.0	31	.7
	1,194	54 <b>,</b> 376	-5,220	45.5	916	5.9
NORTH CAROLINA	26	1,585	+149	61.0	153	1.0
NORTH DAKOTA	13	1,115	+252	85.8	119	
OKLAHOMA	769	33,560	-438	43.6	390	8.6
	21	908	-923	42.9	117	.8
OREGON	31	1,150	+96	37.1	90	1.3
	916	36,722	-2,044	40.1	706	5.2
PUERTO RICO RHODE ISLAND	(2/) (2/)	(2/) (2/)	(2/) (2/)	(2/) (2/)	6	(2/)
SOUTH CAROLINA SOUTH DAKOTA	11	782	+208	71.1	54	1.4
	266	11,758	-818	44.2	156	7.5
TENNESSEE TEXAS	2	57	-136	28.5	212	.0
	41	4,575	-650	111.6	320	1.4
UTAH	16	784	-165	49.0	79	1.0
VERMONT	336	16,379	-909	48.7	194	8.4
VIRGINIAWASHINGTON	41	3,350	+684	81.7	159	2.1
	53	3,121	+208	58.9	179	1.7
WEST VIRGINIA WISCONSIN	6	231	-110	38.5	39	.6
	8,849	348,808	-3,323	39.4	1,812	19.2
WYOMING	(2/)	(2/)	-35	(2/)	12	(2/)
UNITED STATES	17,299	726,610	-23,197	42.0	11,092	6.6

<sup>1/</sup> PRELIMINARY FIGURES FOR JANUARY 1, 1976, NUMBERS OF MILK CONS AND HEIFERS THAT HAVE CALVED, EXCLUDING HEIFERS NOT YET FRESH; ESTIMATED BY THE STATISTICAL REPORTING SERVICE (USDA) IN 'CATTLE', FEBRUARY 1976.
DASHES INDICATE STATE COW NUMBERS NOT AVAILABLE.

<sup>2/</sup> NO PARTICIPATION IN OWNER-SAMPLER TESTING REPORTED.

TABLE 7. -- ALTERNATE AM-PM, COMMERCIAL, AND WEIGH-A-DAY-A-MONTH RECORDKEEPING IN THE UNITED STATES, JANUARY 1, 1976

STATE	HERDS	COWS	CHANGE FROM 1/1/75	COWS PER HERD	U.S. MILK COWS 2/	PCT. OF U.S. COW
	NO.	NO.	NO.	NO.	THOU.	
		<u>AL3</u>	FERNATE AM-PM			
ELAWARE	10	756	+756	75.6	12	6.3
LORIDA	1	271	+371	371.0	196	• 2
DAHO	13	1,675	+508	128.8	144	1.2
OW A	5	171	+171	34.2	392	. •04
ANSAS			- 184 -72			
IINESOTA	11	412	+412	37.5	890	•05
EBRASKA	1	95	+95	95.0	148	.06
EW YORK(DHI-AP)	750	43,524	+10,151	58.0	916	4.8
EW YORK(OS-AP)	146	7,000 IN TABLE 8)	-605 -2,888	47.9	916	•8
HIO (MOR-AP)	20 (INCTODED	1,281	+997	64.1	. 390	.3
ENNSYLVANIA	784	41,723	-915	53.2	706	5.9
ERMONT (DHI)	31	2,140	+1,129	69.0	194	1.1
ERMONT(0S)	10	811	+385	81.1	194	. 4
ASHINGTON	9 564	1,410 22,221	+48 +2,061	156.7 39.4	179 1,812	.8
ISCONSIN						1.2
INITED STATES	2,355	123,590	+12,420	52.5	11,092	1.1
		<u>cc</u>	DEMERCIAL			
CALIFORNIA	228	79,655	+7,124	349.4	810	9.8
OLORADO	10	1,994	+15	199.4	75	2.7
DAHO	5	842	+842	168.4	144	-6
ARYLAND	10	840	+21	84.0	141	• 6
EW MEXICO			-1,483			
T A H	9	1,333	+1,273	148.1	79	1.7
NASHI NGTON	37	6,075	+6,075	164.2	179	3.4
INITED STATES	299	90,739	+13,867	303.5	11,092	.8
		WEIGH-	- A-DAY-A-MONTH			
COLORADO	3	175	-52	58.3	75	• 2
FLORIDA	-	***	-2,500		, •	,,
GEORGIA	56	8,939	-499	159.6	129	6.9
AWAII	13	5,681	+1,577	437.0	14	40.6
DAHO	1	206	+206	206.0	144	.1
LLINOIS	115	5,820	-304	50.6	244	2.4
OWA	6	225	+8 -140	37.5	392	-1
ENTUCKY	5	250	-115	50.0	285	.1
OUISIANA	49	4,351	-329	88.8	138	3.2
ARYLAND	3	148	+25	. 49.3	141	-1
IISSISSIPPI	6	590	-252	98.3	117	•5
VEBRASKA	4	165	+8	41.3	148	-1
EW HAMPSHIRE	6	400	+18	66.7	33	1.2
ORTH CAROLINA ORTH DAKOTA	23 13	1,387 643	-58 +36	60.3 49.5	153 119	•9 •5
REGON	1	195	-436	195.0	90	• 2
UERTO RICO	15	3,707	-272	247.1		
OUTH CAROLINA	7	601	+59	85.9	54	1.1
ENNESSEE	46	3,771	+1,456	82.0	212	1.8
EXASTAH	17 3	2,411	-677 -20	141.8	320	- 8
IRGINIA	3 1	195 102	-20 -3	65.0	79 150	• 2 • 1
ASHINGTON	•	102	-210	102.0	159	• 1
EST VIRGINIA ISCONSIN	11	423	-34 -160	38.5	39	1.1
NITED STATES	404	40,385	-2,237	100.0	11,092	_4
NITED STATES		,303	.,,231	10040	11,032	• • •
HREE PLANS TOTAL	3,058	254,714				

<sup>1/</sup> PRELIMINARY FIGURES FOR JANUARY 1, 1976, NUMBERS OF MILK COWS AND HEIPERS THAT HAVE CALVED, EXCLUDING HEIPERS NOT YET FRESH; ESTIMATED BY THE STATISTICAL REPORTING SERVICE (USDA) IN 'CATTLE', FEBRUARY 1976. DASHES INDICATE STATE COW NUMBERS NOT AVAILABLE.

TABLE 8 .-- MILK-ONLY RECORDS AND OTHER UNOFFICIAL RECORDKEEPING IN THE UNITED STATES, JANUARY 1, 1976

STATE	PLAN	HERDS	COWS	CHANGE FROM 1/6/75	COWS PER HERD	U.S. MILK COWS	PCT. OF U.S. COWS
		NO.	NO.	NO.	NO.	THOU.	
		MILE	C-ONLY REC	ORDS			
RKANSAS	MOR	9	1 000	-198	404.2		
ONNECTICUT LORIDA	SUPERVISED M-0	43	1,092 16,268	-282 +2 <b>,1</b> 36	121.3 378.3	54 196	2.0 8.3
EORGIA	M-0	24	4,068	+1,121	169.5	129	3.2
ANSAS	MILK ONLY	4	1, 180	+1,024 -100	295.0	143	. 8
AINEASSACHUSETTS	MOR MILK ONLY RECORD	7	847	-1,272	121.0	6.5	4 5
ICHIGAN	DHMO	6	1,316	+847 +1,316	121.0 219.3	55 421	1.5 .3
ICHIGAN	OSMO	39	2,945	+2,945	75.5	421	.7
INNESOTAEBRASKA	M-0	· 1	222 59	+222 +59	111.0 59.0	890 148	.02
EW HAMPSHIRE	MOR	5	649	+395	129.8	33	2.0
EW YORK	OS MOR	1 158	145 13,002	-2 -4 15	145.0 82.3	45 9 <b>1</b> 6	.3 1.4
EW YORK	MOR-AP	34 9	2,712	+2,712	79.8	916	.3
ORTH CAROLINA	MILK ONLY	1	1,373 37	+149 +37	152.6 37.0	153 119	.9
KLAHOMAOUTH DAKOTA	MILK ONLY	4 18	540 1,049	+138 +211	135.0 58.3	117 156	.0
ERMONT	MOR	1	128	-1	128.0	194	.0
ISCONSIN	MOR	21	827	+827	39.4	1,812	.0
NITED STATES		387	48,459	+11,869	125.2	11,092	. 4
RKANSAS	(UNSPECIFIED)	2	ALL OTHER	+351	175.5	89	. 4
ELAWARE	(UNSPECIFIED)UNSUPERVISED, UNAPPROVED	2	331	-938	173.5	09	• 4
	METERS, OTHER	3	3,696	+2,005	1,232.0	196	1.9
DAHO	TSTR		2 754	-803	77. (	005	
AINE	BASIC (UNSPECIFIED)	51 18	3,754 1,932	+1,479 +1,932	73.6 107.3	285 60	1.3 3.2
ICHIGAN ICHIGAN ORTH DAKOTA	TMT DHMO-OSMO-TMMO (UNSPECIFIED)	46	2,512	-590 -2,854 -670	54.6	421	.6
REGON	COM'L OR TESTER SAMPLED	11	1,650	+136	150.0	90	1.8
REGON UERTO RICO	HAND CALCULATEDGENERAL FARM RECORDS	7	600	-1,400 -3,568	,85.7 ,	90	.7
OUTH CAROLINA ASHINGTON	BASIC MANAGEMENTTESTER-SAMPLER			-247 -5,918			
NITED STATES		138	14,495	-11,085	106.9	11,092	.1
	LY AND OTHER UNOFFICIAL PLANS	525	62,954	+785			

<sup>1/</sup> PRELIMINARY FIGURES FOR JANUARY 1, 1976, NUMBERS OF MILK COWS AND HEIFERS THAT HAVE CALVED, EXCLUDING HEIFERS NOT YET FRESH: ESTIMATED BY THE STATISTICAL REPORTING SERVICE (USDA) IN "CATTLE", FEBRUARY 1976.

DASHES INDICATE STATE COW NUMBERS NOT AVAILABLE.

TABLE 9.--ENROLLMENT IN THE OFFICIAL PLANS IN THE THE UNITED STATES AND PERCENT OF CORS ON TEST, JANUARY 1, 1940-76 1/

			:				L DHI AND	DHIR			:		
	ASSOCI-	SUPER-	: HERDS	COWS EN-	COWS	PCT. OF	HERDS		: AVERAC	E PROD		U.S.	PCT. IN
YEAR			3/:ROLLED	ROLLED	HERD	U.S. COWS		REPORTED		FAT	PAT	MILK	ALL PLANS
40.00	No.	NO.	NO.	NO.	NO.		NO.	NO.	LB	PCT	LB	THOU.	
1940 1941 1942	1,300 1,383 1,421		27,948 31,381 32,957	676,141 763,502 816,117	24.2 24.3 24.8	2.91 3.23 3.36	===	545,382 591,103 514,758	8,133 8,225 8,323	4.07 4.07 4.07	331 335 339	4/23,273 23,671 24,288	2.91 3.23 3.36
1943 1944 1945	1,057 954 949		24,155 20,825 21,254	616,972 561,587 577,200	25.5 27.0 27.2	2.47 2.21 2.25		375,914 383,337 384,360	8,325 8,296 8,592	4.06 4.05 4.03	338 336 346	25,027 25,451 25,597	2.47 2.21 2.25
1946 1947 1948	1,124 1,426 1,668	===	23,331 28,812 33,274	627,878 775,546 886,129	27.0 26.9 26.6	2.51 3.22 3.80		413,554 533,061 620,385	8,635 8,638 8,675	4.04 4.03 4.03	349 348 350	25,033 24,089 23,329	2.51 3.22 3.80
1949 1950 1951	1,787 1,973 2,143	===	35,851 40,100 42,949	943,939 1,088,872 1,186,615	26.3 27.2 27.6	4.23 4.94 5.41		729,150 836,922 885,859	8,907 9,172 9,195	4.03 4.03 4.02	359 370 370	22,336 22,624 21,944	4.23 4.94 5.41
1952 1953 1954	2,109 2,151 2,175	===	40,105 40,983 41,254	1,166,297 1,226,588 1,311,698	29.1 29.9 31.8	5.42 5.75 6.05		928,376 1,020,326 1,079,557	9,192 9,253 9,363	3.98 3.98 3.97	366 368 372	21,505 21,338 21,691	5.42 5.75 6.05
1955 1956 1957	2,288 2,266 1,700	2,310	41,240 40,984 41,638	1,333,866 1,406,306 1,479,799	32.3 34.4 35.5	6.18 6.68 7.22		1,175,378 1,229,971 1,256,129	9,502 9,713 9,894	3.95 3.94 3.93	375 383 389	21,581 21,044 20,501	6.18 5/8.46 6/9.30
1958 1959 1960	1,544 1,500 1,509	2,293 2,337 2,397	39,985 40,284 41,293	1,548,884 1,607,538 1,746,752	38.7 39.9 42.3	7.83 8.59 9.76	 	1,345,750 1,406,665 7/1,343,725	10,068 10,327 7/10,561	3.91 3.88 3.87	394 401 7/409	19,774 18,711 17,901	10.71 11.93 13.63
1961 1962 1963	1,395 1,436 1,441	2,448 2,472 2,516	42,558 42,034 41,937	1,867,469 1,958,355 2,006,534	43.9 46.6 47.8	10.66 11.36 11.91	28,649 32,794 35,378	1,280,785 1,531,826 1,674,803	10,796 11,032 11,286	3.87 3.86 3.85	418 426 434	17,515 17,243 16,842	14.81 15.82 16.53
1964 1965 1966	1,420 1,424 1,418	2,474 2,439 2,378	40,670 40,075 38,879	2,010,144 2,087,581 2,058,592	49.4 52.1 52.9	12.36 13.32 13.77	35,689 35,604 34,886	1,746,475 1,821,252 1,852,533	11,685 11,976 12,127	3.83 3.82 3.81	447 457 462	16,260 15,677 14,954	17.36 18.90 19.76
1967 1968 1969	1,344 1,318 1,289	2,319 2,304 2,250	37,683 36,869 35,617	2,098,919 2,131,929 2,138,953	55.7 57.8 60.1	15.22 16.06 16.65	34,515 33,560 33,130	1,890,024 1,924,200 1,959,647	12,307 12,397 12,553	3.80 3.80 3.79	468 471 476	8/13,793 13,273 12,847	21.59 22.82 23.55
1970 1971 1972	1,267 1,274 1,247	2,225 2,201 2,186	34,308 33,996 33,197	2,122,011 2,218,402 2,244,685	61.9 65.3 67.6	16.87 17.87 18.28	31,138 30,699 30,190	1,937,390 1,995,463 2,050,132	12,750 13,000 13,226	3.79 3.76 3.75	483 489 496	9/12,578 12,414 12,279	24.81 25.71 26.12
1973 1974 1975 1976	1,231 1,130 1,105 1,051	2,164 2,209 2,183 2,218	33,578 33,146 32,222 32,232	2,359,611 2,416,669 2,432,961 2,438,365	70.3 72.9 75.5 75.7	20.25 21.42 21.69 21.98	30,826 30,280 29,543	2,177,626 2,221,349 2,216,817	13,287 13,163 13,421	3.76 3.75 3.76	499 493 505 	11,651 11,284 11,211 11,092	28.65 30.21 31.00 31.39

<sup>1/</sup> DASHES INDICATE DATA NOT REPORTED OR CALCULATED.
2/ NUMBER OF ASSOCIATIONS INCLUDES ALL PLANS.
3/ PRIOR TO 1957, ASSOCIATIONS WERE COUNTED ON THE BASIS OF SUPERVISOR CIRCUITS. NUMBER OF SUPERVISORS INCLUDES ALL PLANS.
4/ FROM 1940 THROUGH 1966, U.S. COMS ARE THE AVERAGE NUMBER OF MILK COWS ON FARMS FOR THE PREVIOUS YEAR, EXCLUDING HEIFERS

NOT YET FRESH. ESTIMATED BY THE STATIS. RPT. SERV., USDA.
5/ OWNER-SAMPLER TABULATION BEGAN IN 1956.
6/ WEIGH-A-DAY-1-MONTH TABULATION BEGAN IN 1957.
7/ NATIONAL TESTING YEAR CHANGED IN 1960 TO BEGIN MAY 1. THESE VALUES ARE AVERAGES OF 1959 AND 1961.
8/ FOR 1967 THROUGH 1969, AVERAGE NUMBER OF MILK COWS ON FARMS IN DECEMBER OF PREVIOUS YEAR, EXCLUDING HEIFERS NOT YET FRESH.

ESTIMATED BY THE STATIS. RPT. SERV., USDA.

BSTIMATED BY THE STATIS. RPT. SERV., USDA.

TABLE 10.--ENROLLMENT IN THE OWNER-SAMPLER PLAN IN THE UNITED STATES, JANUARY 1, 1956-76 1/, 2/

	HERDS EN-	COWS EN-	COWS PER	PCT. OF	HERDS	COWS -	: AV ER	AGE PRODUC	TION
YEAR	ROLLED	ROLLED	HERD	U.S. COWS	REPORTED	REPORTED	: MILK	FAT	FAT
	NO.	NO.	NO.		NO.	NO.	LB.	PCT	LB.
1956	17,110	374,479	21.9	1.78					
195 <b>7</b> 1958	20,778 21,269	405,090 490,001	19.5 23.0	1.98 2.48					
1959		549,916	24.1	2.94					
1960 1961	24,274 24,498	615,899 655,885	25.4 26.8	3.44 3.74					
1962		698,302	28.0	4.05		= = = .			
1963 1964	25,376 25,598	726,478 752,229	28.6 29.4	4.31 4.63	14,761 13,574	423,545 385,493	10,606 10,885	3.73 3.71	396 404
1965	26,604 26,259	818,406 839,838	30.8 32.0	5.22 5.62	18,409 19,172	559,608 598,133	11,402 11,472	3.71 3.70	423 425
1967 1968	25,439 25,143	825,127 847,485	32.4 33.7	5.98 6.39	17,912 17,318	575,816 592,647	11,607 11,847	3.72 3.72 3.72	432 441
1969	24,359	842,330	34.6	6.56	17,908	614,939	11,932	3.72	444
1970 1971	23,281 22,581	839,343 836,751	36.1 37.1	6.67 6.74	16,971 16,569	611,819 612,080	12,185 12,413	3.72 3.71	453 460
1972	21,345	805,555	37.7	6.56	16,107	618,088	12,544	3.74	466
1973 1974	20,895 19,738	806,270 783,195	38.6 39.7	6.92 6.94	16,183 16,037	631,269 639,964	12,488 12,353	3.75 3.75	468 463
1975 1976	18,112 17,299	749,807 726,610	41.4 42.0	6.69 6.55	14,704	610,910	12,503	3.80	475

TABLE 11.--ENROLLMENT IN OTHER UNOFFICIAL PLANS IN THE UNITED STATES, JANUARY 1,1957-76 1/

YEAR	HERDS EN- ROLLED	COWS EN- ROLLED	COWS PER HERD	PCT. OF U.S. COWS	YEAR	HERDS EN- ROLLED	COWS EN- ROLLED	COWS PER HERD	PCT. OF U.S. COWS
	NO.	No.	NO.			NO.	NO.	NO.	
1957	1,174	21,297	18.1	0.10	1973	2,225	172,610	<b>7</b> 7.6	1.48
1958	3,629	79,489	21.9	.40	1974	2,675	208,962	78.1	1.85
1959	2,998	74,814	25.0	.40	1975	3,264	292,834	89.7	2,61
1960	3,119	76,392	24.5	.43	1976	3, 583	317,668	88.7	2.86
1961	2,363	70,847	30.0	.40					
1962	1,936	70,617	36.5	.41					
1963	1,500	50,492	33.7	.30					
1964	1,396	60,149	43.1	.37					
1965	1,229	56,570	46.0	.36					
1966	1,160	56,957	49.1	.38					
1967	1,001	53,429	53.4	.39					
1968	86 <b>7</b>	48,853	56.3	.37					
1969	708	44,131	62.3	.34					
1970	2,040	158,789	77.8	1.26					
1971	1,935	136,304	70.4	1.10					
1972	2,108	156,593	74.3	1.28					

<sup>1/</sup> TABULATION OF THE WEIGH-A-DAY-A-MONTH PLAN BEGAN IN 1957; TABULATION OF OTHER UNOFFICIAL PLANS
OPERATING UNDER AUSPICES OF THE NCDHIP BEGAN IN 1970. THE COUNTS INCLUDE DATA RECEIVED FOR ALTERNATE AM-PM, COMMERCIAL,
WADAM, MILK-ONLY RECORD, AND ALL OTHER UNOFFICIAL PLANS.

<sup>1/</sup> DASHES INDICATE DATA NOT TABULATED OR AVAILABLE.
2/ TABULATION OF THE OWNER-SAMPLER PLAN BEGAN IN 1956.

TABLE 12.--ASSOCIATIONS BY STATES WITH 40 PERCENT OR MORE COWS INCLUDED IN THE NATIONAL COOPERATIVE DAIRY HERD IMPROVEMENT PROGRAM, JANUARY 1, 1976 1/

STATE AND COUNTY OR	COWS ENROLLED IN	STATE AND COUNTY OR	COWS ENROLLED IN	STATE AND COUNTY OR	COWS ENROLLEI IN
MOITAIDCEA	NCDHIP PCT	ASSOCIATION	NCDHIP 	ASSOCIATION	NCDHIP PCT
3T 3 D 3 W 3	FCI	FLORIDA	FG1	TNDTANA (CONTINUED)	201
ALABAMA				INDIANA (CONTINUED)	
LEE	98 97	COLUMBIA	100 100	PARKE	53 53
MARSHALLELMORE	95	JEFFERSON	100	CASS	51
MONROE	93	ST. JOHNS	100	ELKHART	45
AUTAUGA	81	WASHINGTON	100	HOW A RD	43
ESCAMBIA	79	GILCHRIST	92	MORGAN	43
GENEVA	78	ORANGE	83	HANCOCK	42
JEFFERSON	76 73	LAKE	75	LAPORTE	42
MARENGO	73 69	ESCAMBIA	64 56	RIPLEY	41 41
BLOUNTETOWAH	69	BAKER	54	BOONE	40
MORGAN	66	ALACHUA	50		
RUSSELL	62	SARASOTA	43		
CONECUH	59			IOWA	
CULLMAN	54	anopara		D1111C-	7.1
HENRY	54 50	GEORGI A		DALLAS	71 61
MONTGOMERY	50 50	CLARKE	100	POLK	61 58
LIMESTONE	49	C00K	98	SCOTT	55
BALDWIN	47	SCHLEY	98	DECATUR	54
DEKALB	47	HEARD	96	HAMILTON	51
HOUSTON	47	MCDUPFIE	95	STORY	51
CHEROK EE	45	FAYETTE	93	BUENA VISTA	50
MADISON	44 41	MACCN	93 86	WARREN	48
MARIONST. CLAIR	40	BROOKS	85	JASPER	45 40
or. Chara	40	JEFFERSON	84	301113011	40
		WALTON	83		
ARIZONA		FLOYD	82	KANSAS	
		SUMTER	81		
PINA	100	CARROLL	80	ELLIS	90
YUMA	75 75	PEACH	80 80	MEADE DECATUR	86 70
MARICOPA	60	JONES	76	SUMNER	68
COCHISE	50	MITCHELL	76	RICE	6.5
		THOMAS	76	DICKINSON	63
		NEWTON	75	CHAUTAUQUA	60
ARKANSAS		TIFT	73	WYANDOTTE	59
COLUMBIA	50	GWINNETT	72 70	HASKELL	58 55
NEVADA	40	RICHMOND	70	LOGAN	54
	. •	TATTNALL	68	SALINE	53
		DEKALB	65	SEDGWICK	52
CALIFORNIA		TWIGGS	65	MARION	49
01 VM1 P1PP1P1	400	BURKE	62	ALLEN	48
YUBA-SUTTER	100 95	MORGAN	60 55	HARVEY	48
PLACER-NEVADA	74	BACON	45	MCPHERSONPAWNEE	48 48
SAN JOAQUIN	72	BULLOCH	45	PRATT	48
VENTURA	71	JEFF DAVIS		RUSSELL	48
FRESNO	70			HARPER	47
MADERA	67			DOUGLAS	46
TULARE	67 66	HAWAII		GEARY	46
KERN	65	KAUAI	100	ANDERSON	44 43
CENTRAL COAST COUNTIES	58	MAUI	100	ELK	43
DEL NORTE	58	OAHU	85	WABAUNSEE	43
NORTH CENTRAL VALLEY	56			WASHINGTON	43
STANISLAUS	56			COMFEA	41
MERCEDGLENN	55 44	ILLINOIS			
SOUTHERN COUNTIES	43	SANGAMON	85	KENTUCKY	
HUMBOLDT	41	MONROE	79	RENTUCKI	
KINGS	40	BROWN	73	FAYETTE	60
TEHAMA	40	LAWRENCE	73		
		KENDALL	69		
CONNECTION		MCLEAN	53	LOUISIANA	
CONNECTICUT		HAMILTON	50 47	JICKSON	100
TOLLAND	80	BOND	46	JACKSON RAPIDES	100 100
HARTFORD	56	DEKALB	42	BIEN VILLE	82
LITCHFIELD	53	KANKAKEE	42	GRANT	81
NEW HAVEN	53	LIVINGSTON	42	OUACHITA	78
NEW LONDON-MIDDLESEX	41	RICHLAND	. 41	WEST BATON ROUGE	63
		COLES	40	EAST BATON ROUGE	60
DELAWARE		PEORI A	40	UNION	58
STREET				CATAHOULA	57 53
NEW CASTLE	43	INDIANA		IBERIA	53
SUSSEX	41	**		MOREHOUSE	53
		MADISON	66	LINCOLN	46
		PUTNAM	56	WEBSTER	40

TABLE 12. -- ASSOCIATIONS BY STATES WITH 40 PERCENT OR MORE COWS INCLUDED IN THE NATIONAL COOPERATIVE DAIRY HERD IMPROVEMENT PROGRAM, JANUARY 1, 1976 (CONTINUED)

STATE AND COUNTY OR ASSOCIATION	COWS ENROLLED IN NCDHIP	STATE AND COUNTY OR ASSOCIATION	COWS ENROLLED IN NCDHIP	STATE AND COUNTY OR ASSOCIATION	COWS ENROLI IN NCDH:
ASSOCIATION		45300181108			PCT
	PCT		PCT		
MAINE		NEBRASKA		NORTH CAROLINA (CONTINUE	ED)
ROSCOGGIN	53	CASS	47	LENOIR	59
ORD	50	JEFFERSON	46	MADISON	59
BERLAND	48	RICHARDSON	45	YADKIN	59 58
IERSET	46	THAYBR	45	CLEVELAND	58
D0	46	DODGESARPY	44 40	CHATHAM	57
		JAKEI		SURRY	54
MARYLAND				WAYNE	52 51
	400	NEVADA		WILSON	50
RCHESTER	100 86	CLARK	82	PERSON	47
CIL	55	DOUGLAS	60	HVAROOD	46
EGANY	48	TAOM	44	BEAUFORT	4:
ARD	48			CATAWBA	41
RFORD	45 45	NEW HAMPSHIRE		PENDER	41
TT	44	NEW MENESHARD		BLADEN	4:
RROLL	43	CARROLL	78	rincorn	4:
RVA ASS'N	43	SULLIVAN	56	UNION	4
		MERRI MACK-BELKNAP	51 47		
was coasting pumps		CHESHIREGRAFTON	47	OHIO	
MASSACHUSETTS		STRAFFORD	46		-
RNSTABLE	90	HILLSBORD	45	MARION	5° 5
RKSHIRE	44	ROCKINGHAM	43	MADISONALLEN	4
ANKLIN	42			LORAIN	4
		NEW JERSEY		PAULDING	4:
MICHIGAN				FULTON	4
II LOILLOIN		BURLINGTON-MON	48	WARREN	
LAMAZ00	53			SANDUSKY	
L HOUN	52	NEW HEXICO		VAN WERT	. 4
RRY	49 45	HEW HEXICO		ASHLAND	
LLS DALE	44	CHAVEZ	95	ERIE	. 4
NAWEE	42	OTERO	95	RICHLANDTUSCARAWAS	4-
GHAM	40	SIERRA	90 82	HANCOCK	
IAWASSEE	40	DONA ANABERNALILLO	44	COLUMBIANA-MAHONING	. 4
		DEKAREDO			
MINNESOTA		NEW YORK		OKLAHOMA	
MORV	100	NEW YORK			4.0
MSEYAVERSE	74	COLUMBIA	54	ATOKA	
KE OF THE WOODS	53	YATES	49	PITTSBURGGRANT	
N NE PIN	52	TOMPKINS		CARTER	
O DHUE	49	SCHOHARIE		ALFALFA	- 5
KOT A	46 46	LIVINGSTON		CUSTER	
CTDAGING CTDAGINA	45	TIOGA	. 43	GREER	
TONWAN		CORTLAND		MCINTOSH	
RTIN	43	CAYUGA		WASHINGTON	- 5
LKIN	40 44	DELAWARD	,,,	WOODWARD	- 5
CKSON	44			ROGERS MILL	
		NORTH CAROLINA		KAY	- 1
MISSISSIPPI			- 100	OSAGE	
	400	FRANKLINSWAIN		ROGERS	- '
NDS	100 98	HOKE	- 97	TEXAS	
MAR	~ ~	NASH	- 97		
NKIN	56	TEE	- 94 - 93	OREGON	
RION	48	ONSLOWONSLOW			
NTGOMERY	46 46	PITT		JOSEPHINE	
KE	70	WAKE	- 86	POLK	-
		CUMBERLAND	- 83	BENTON	
MISSOURI		WARREN		KLAHATH	-
	64	BUNCOMBECASWELL		LANE	-
CKSON		COLUMBUS	- 76	YAMHILL	<del>-</del>
ASS		STOKES	- 76	MARION	_
		MONTGOMERY	- 70 - 68	UNION	-
MONTANA		GUILFORDHENDERSON		CLACKAMAS	-
	E0	GASTON		JACKSON	-
LLATIN		HALIFAX	- 67		
EWIS & CLARK		HYDE	- 67	PENNSYLVANIA	
AVALLI		DURHAM	- 63 - 61		
		DAVIDSON		MONTGOMERY	
		ROCKINGHAM	- 60	POTTER	- '
		RUTHERFORD		BLAIR	- 5-3-
			N <sup>an</sup>	40 (\$60)	
		in the state of	ragi si		

TABLE 12.--ASSOCIATIONS BY STATES WITH 40 PERCENT OR MORE COMS INCLUDED IN THE NATIONAL COOPERATIVE DAIRY HERD IMPROVEMENT PROGRAM, JANUARY 1, 1976 (CONTINUED)

STATE AND COUNTY OR ASSOCIATION	COWS ENROLLED IN NCDHIP	STATE AND COUNTY OR ASSOCIATION	COWS ENROLLED IN NCDHIP	STATE AND COUNTY OR ASSOCIATION	COWS ENROLL IN NCDHI
	PCT		PCT		PCT
PENNSLYVANIA (CONTINUED)		TEXAS (CONTINUED)		VIRGINIA (CONTINUED)	
	F.3	DEAF SMITH	52	PRINCE WILLIAM	56
UNTINGDON	53 49	COLLIN	50	CITY OF CHESAPEAKE	55
ANCASTER	49	VICTORIA	48	KING WILLIAM	55
CHUYLKILL	49	ARCHER	40	ROCKINGHAM	53
ENTRE	46	WILLIAMSON	40	CULPEPER	52
LLEGHENY	45			AMELIA	51
CKEAN	45			APPOMATTOX	49
ERRY	45	UTAH		PITTSYLV ANI A	49
HESTER	44			SOUTHAMPTON	49
UNIATA	44	SAMPETE	80	SMYTH	48
RADFORD	43	UTAH	80	ALBERMARLE	47
IFFLIN	43	WEBER	72	WASHINGTON	47
LINTON	42	SALT LAKE	70	YORK AND CITY OF NEWPORT NEWS	
		DAVIS	65	PLUVANNA	46
		SUMMIT	57	LOUDOUN	45
PUERTO RICO		WASATCH	56 54	WISE	44 44
		BEAVER	52	MECKLENBURG	43
U AY AM A	100	MORGAN	47	WYTHE	43
AYAGUEZ	100	CACHE	43	HALIFAX	41
OCA	100	EMERY	42	HRU11 AA	71
AN GERMAN	100	MILLARD		WASHINGTON	
SOUTH CAROLINA		VERMONT			
				KITTITAS	83
ALHOUN	75	BENNINGTON	68	CLALLAM	80
LARENDON	73	WASHINGTONWCTBNIHZAW	55	PACIFIC	62
AMBERG	72	WINDSOR	52	CLARK	60
EWBERRY	68			WAHKIAKUM	60
EE	67			SKAGIT	53
RANGEBURG	67	VIRGINIA		SPOKANE	52
ASPER	66		100	GRAYS HARBOR	50 48
AURENS	66	ALLEGHANY	100	SNOHOMISH	48
TCHLAND	66	CLARKE	100	PIERCE	44
ALUDA	65	GREENE	100	THURSTON	44
REENVILLE	62	NELSON	96	KING	43
UMTER	61 52	KING GEORGE ROCKBRIDGE	91		
NDERSON	50	CAROLINE	90		
ARL INGTON	49	MADISON	85	WEST VIRGINIA	
REENWOOD	48	PATRICK	85		
EXINGTON	48	CAMPBELL	81	JEFFERSON	50
AIRFIELD	46	SHENANDOAH	81	MASON	45
LORENCE	46	PULASKI	80	GREENBRIER	40
DRK	41	FRANKLIN	77		
AIKEN	40	JAMES CITY	76		
		NOTTOWAY	75	WISCONSIN	
		NANSEMOND	74		
SOUTH DAKOTA		HANOVER	71	PLORENCE	59
DOULL DANGER		POWHATAN	71	KENOSHA	47
JTTE	63	AUGUSTA	69	MANITOWOC	47
ACKSON	53	DINWIDDIE	68	DOOR	44
		GOOCHLAND	68	WINNEBAGO	43
		CITY OF VIRGINIA BEACH	66	BARRON	41
TEXAS		SPOTSYLVANIA	66	WAUKESHA	40
		CHARLOTTE	64		
AMERON	100	FAIRFAX	63		
IDAL GO	70	FAUQUIER	63	WYOMING	
ILAM	66	BRUNSWICK	62		
ICHITA	65	ORANGE	62	LARAMIE	65
ENDALL	57	HENRI CO	61	PARK	58
URLESON	52	RICHMOND	61	SHERIDAN	53
			57	ALBANY	46

<sup>1/</sup> ASSOCIATIONS MAY BE COUNTY, MULTI-COUNTY, OR CITY UNITS.

## ERRATA

SEVERAL CHANGES SHOULD BE MADE IN YOUR COPY OF THE DHI LETTER, VOL. 49, NO.4, ARS-NE-29.

PAGE 9. LAST PARAGRAPH - THE FIRST SENTENCE SHOULD READ: FROM THAT TIME TO THE PRESENT, SIRE SUMMARIES HAVE BEEN COMPUTED AND PUBLISHED FROM ONE TO FOUR TIMES ANNUALLY.

PAGE 11. LAST LINE UNDER MEMORANDUM OF UNDERSTANDING: ----- PAGE 32.

PAGE 53. IN BLOCK UNDER 1926: BUREAU OF DAIRY INDUSTRY.

PAGE 55. THE DATE 1961 OVER DAIRY CATTLE RESEARCH BRANCH SHOULD BE 1958.

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TABLE 13. -- EXTENSION DATRYMEN ADVISING ON THE DAIRY HERD IMPROVEMENT PROGRAM IN EACH STATE AS OF JANUARY 1, 1976
ALABANA------CHARLES D. GRIFFIN, DAIRY SCIENCE DEPT., AUBURN UNIVERSITY, AUBURN 36830.
ALASKA-----AETHUR L. BRUNDAGE, EXPERIMENT STATION RESEARCH STAFF, UNIVERSITY OF ALASKA, PALMER 99645.
ARIZONA------DENNIS V. ARMSTRONG, DEPT. OF DAIRY SCIENCE, UNIVERSITY OF ARIZONA, TUCSON 85721.
ARKANSAS------LANTIS RATCLIFF, ANIMAL INDUSTRY & VETERINARY SCIENCE DEPT., UNIVERSITY OF ARKANSAS, LITTLE ROCK 72203.
CALIFORNIA-----PRANK D. MURRILL, EXTENSION SERVICE, UNIVERSITY OF CALIFORNIA, DAVIS 95616.
COLORADO------DAWSON C. JORDAN, ANIMAL SCIENCE DEPT., COLORADO STATE UNIVERSITY, FORT COLLINS 80521.
CONNECTICUT----ROBERT H. BENSON, ANIMAL INDUSTRIES DEPT., UNIVERSITY OF CONNECTICUT, STORRS 06268.
DELAWARE----- R. HESSELTINE, ANIMAL AND POULTRY SCIENCE DEPT., UNIVERSITY OF DELAWARE, NEWARK 19711.
FLORIDA------DANIEL W. WEBB, DAIRY SCIENCE BLDG., UNIVERSITY OF FLORIDA, GAINESVILLE 32601.
HAWAII-----STEVEN E. OLBRICH, ANIMAL SCIENCE DEPT., UNIVERSITY OF HAWAII, HONOLULU 96822
IDAHO------RICHARD H. ROSS, AGRICULTURAL SCIENCE BLDG., UNIVERSITY OF IDAHO, MOSCOW 83843.
ILLINOIS-----GERHARD W. HARPESTAD, DAIRY SCIENCE DEPT., UNIVERSITY OF ILLINOIS, URBANA 61801.
INDIANA------WILLARD M. DILLON, DEPT. OF ANIMAL SCIENCES, PURDUE UNIVERSITY, LAPAYETTE 47907.
IONA-----DONALD E. VOELKER, ANIMAL & DAIRY SCIENCE DEPT., IOWA STATE UNIVERSITY, AMES 50010.
KANSAS------ E. RALPH BONEWITZ, DAIRY SCIENCE DEPT., KANSAS STATE UNIVERSITY, MANHATTAN 66502.
KENTUCKY-----EVANS E. WRIGHT, DAIRY SCIENCE DEPT., UNIVERSITY OF KENTUCKY, LEXINGTON 40506.
LOUISIANA------JAMES F. BEATTY, LSU COOP. EXTENSION SERVICE, KNAPP HALL, UNIVERSITY STATION, BATON ROUGE 70803
MAINE-----CALVIN K. WALKER, ANIMAL SCIENCE DEPT., UNIVERSITY OF MAINE, ORONO 04473.
MARYLAND-----J. LEE MAJESKIE, JULL HALL, DAIRY SCIENCE DEPT., UNIVERSITY OF MARYLAND, COLLEGE PARK 20742.
HASSACHUSETTS---SIDNEY J. LYFORD, JR., VETERINARY & ANIMAL SCIENCES DEPT., UNIVERSITY OF MASSACHUSETTS, AMHERST 01003.
MICHIGAN------MARTIN A. WILSON, DAIRY DEPT., MICHIGAN STATE UNIVERSITY, EAST LANSING 48823.
HINNESOTA-----J. WILLIAM MUDGE, ANIMAL SCIENCE DEPT., UNIVERSITY OF MINNESOTA, ST. PAUL 55101.
HISSISSIPPI-----GEORGE B. CRAIN, DAIRY SCIENCE DEPT., MISSISSIPPI STATE UNIVERSITY, STATE COLLEGE 39762.
MISSOURI-----REX E. RICKETTS, DAIRY HUSBANDRY DEPT., UNIVERSITY OF MISSOURI, COLUMBIA 65201.
MONTANA-----B. R. MOSS, DEPT. OF ANIMAL SCIENCE & RANGE MANAGEMENT, MONTANA STATE COLLEGE, BOZEMAN 59715.
NEBRASKA-----PHILLIP H. COLE, ANIMAL SCIENCE DEPT., UNIVERSITY OF NEBRASKA, LINCOLN 68503.
NEVADA----- MAX B. RADMALL, ANIMAL SCIENCE DEPT., UNIVERSITY OF NEVADA, RENO 89507.
NEW HAMPSHIRE---JOHN S. PIWOWAR, ANIMAL SCIENCE DEPT., UNIVERSITY OF NEW HAMPSHIRE, DURHAM 03824.
NEW JERSEY-----EDWARD T. OLESKIE, ANIMAL SCIENCE DEPT., RUTGERS UNIVERSITY, NEW BRUNSWICK 08903.
NEW MEXICO-----J. BORDEN ELLS, DAIRY DEPT., NEW MEXICO STATE UNIVERSITY, LAS CRUCES 88001.
NEW YORK-----HARRY R. AINSLIE, ANIMAL SCIENCE DEPT., CORNELL UNIVERSITY, ITHACA 14850.
NORTH CAROLINA -- FRANK D. SARGENT, ANIMAL SCIENCE DEPT., NORTH CAROLINA STATE UNIVERSITY, RALEIGH 27607.
NORTH DAKOTA----GEORGE R. FISHER, DAIRY HUSBANDRY DEPT., NORTH DAKOTA STATE UNIVERSITY, FARGO 58102.
OHIO------WALLACE R. TAYLOR, DAIRY SCIENCE DEPT., OHIO STATE UNIVERSITY, COLUMBUS 43210.
OKLAHOMA------JACK D. STOUT, DEPT. OF DAIRYING, OKLAHOMA STATE UNIVERSITY, STILLWATER 74074.
OREGON-----DONALD E. ANDERSON, 256 WARNER-MILNE RD., OREGON CITY 97045
PENNSYLVANIA----HERBERT C. GILHORE, DAIRY SCIENCE DEPT., PENNSYLVANIA STATE UNIVERSITY, UNIVERSITY PARK 16802.
PUERTO RICO----J. L. VALE-SALINAS, AGR. EXTENSION SERVICE, BOX AR, UNIVERSITY OF PUERTO RICO, RIO PIEDRAS 00928.
RHODE ISLAND----JAMES W. COBBLE (ACTING), DAIRY SCIENCE DEPT., UNIVERSITY OF RHODE ISLAND, KINGSTON 02881.
SOUTH CAROLINA -- GEORGE E. GRAHLING, DAIRY SCIENCE DEPT., CLEMSON UNIVERSITY, CLEMSON 29631.
SOUTH DAKOTA----MYERS OWENS, DAIRY SCIENCE DEPT., SOUTH DAKOTA STATE UNIVERSITY, BROOKINGS 57006
TENNESSEE-----V. D. PARSONS, DAIRY DEPT., UNIVERSITY OF TENNESSEE, P. O. BOX 1071, KNOXVILLE 37901.
TEXAS-----HICHAEL A. TOMASZEWSKI, HERMAN HEEP BLDG. - RM. 110-C, TEXAS A & M UNIVERSITY, COLLEGE STATION 77843
UTAH------ROSS OLSEN, DAIRY SCIENCE DEPT., UTAH STATE UNIVERSITY, LOGAN 84321
VERMONT------WILLIAM P. LEAHY, ANIMAL 8 DAIRY SCIENCE DEPT., UNIVERSITY OF VERMONT, BURLINGTON 05401.
VIRGINIA------WILLIAM N. PATTERSON, DAIRY SCIENCE DEPT., VIRGINIA POLYTECHNIC INSTITUTE, BLACKSBURG 24061
WASHINGTON ----BILL F. KELSO, WESTERN WASHINGTON RESEARCH AND EXTENSION CENTER, WASH. STATE UNIV., PUYALLUP 98371.
WEST VIRGINIA---R. O. KELLEY, ANIMAL INDUSTRY & VETERINARY SCIENCE DEPT., WEST VIRGINIA UNIVERSITY, MORGANTOWN 26506.
WISCONSIN-----BUGENE E. STARKEY, DAIRY SCIENCE DEPT., UNIVERSITY OF WISCONSIN, MADISON 53706.
WYOMING -----BARRY J. STEEVENS, BOX 3354, UNIVERSITY STATION, LARAMIE 82071
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